IV1351 Data Storage Paradigms 7.5 credits

Datalagring

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for IV1351 valid from Autumn 2017

Grading scale

A, B, C, D, E, FX, F

Education cycle

First cycle

Main field of study

Information Technology,Technology

Specific prerequisites

ID1018 Programming I 7,5 credits, or equivalent.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After passing the course, the student shall be able to:

1. describe and explain basic concepts, principles and theories within the field of data/databases/data storage, as well as information administration and database technologies.
2. model the information needs of a business based on a business description.
3. use relational databases, XML and query languages.
4. describe how a program kan access a database and write such a program.

Course contents

- Introduction to databases, data storage and information administration
- The relational model and normalization
- XML
- Conceptual modeling and Logical database design
- Query languages
- Embedded query languages

Disposition

The course is carried out with lectures, lessons, tutorials, presentations, and tutoring. A project is conducted in two stages with compulsory presentations. The project is done in groups of 3 students.

Course literature

Kursbok:
Database Systems: A Practical Approach to Design, Implementation and Management, Connolly, Begg
Upplaga: 6 Förlag: Pearson År: 2014
ISBN: 9781292061184

Kursmaterial:

- Kurskompendium (med lektionsuppgifter, projektarbetet, mm)
- Föreläsningsbilder
- Kompendium om Microsoft Access och MySQL

Allt material är tillgängligt elektroniskt via Canvas. Andra böcker än den angivna kursboken om databaser kan fungera lika bra. Till exempel Fundamentals of Database Systems av Elmasri/Navathe eller Database System Concepts av Silberschatz et al.

Examination

- LAB1 - Laboratory Works and Project, 4.5 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

In order to pass the course, a student must have a pass grade on both examinations.

The average of the two grades (rounded up, though at most one step better than the grade of the exam) constitutes the final course grade.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.